

Applicants: Short et al.
Application No.: 10/509,431
Amendment and Response dated September 23, 2009
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REMARKS

STATUS OF CLAIMS

Claims 41-76 are pending. It is noted that previously presented Claims 73-77 have been renumbered as Claims 72-76. Reference shall be made herein to the new numbering.

Please amend Claims 41-51, 53, 63, 67, 68, 70-76. Support for the claim amendments can be found throughout the specification and in the claims as originally filed. For example, the paragraph bridging pages 15 and 16 of the original specification and the third full paragraph on page 16 of the original specification discuss the mask plate.

35 U.S.C. §112, SECOND PARAGRAPH REJECTIONS

Claims 41-76 were rejected under 35 U.S.C. §112, second paragraph as allegedly being indefinite as detailed below.

Claim 41 (from which Claims 42-76 depend) stands rejected for using the phrase “using at least one organic compound monomer as a source of plasma”. For greater clarity, this phrase has been replaced with the phrase “using at least one organic compound monomer to produce a plasma from which the plasma polymer is deposited”. Support for this phrase can be found in the specification at page 4, lines 2-14 as well as page 14, lines 8-9 and lines 25-28.

Claims 47-51 and 53 stand rejected for use of the term “volatile” with respect to the compounds recited therein which detail various organic compound monomers. Applicants have amended Claims 47-51 and 53 to remove the term “volatile”.

Claim 46 stands rejected for use of the phrase “heterogeneous surface”. Applicants have amended Claim 46 to remove the phrase “heterogeneous surface”.

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In view of the aforementioned amendments, Applicants respectfully submit that the claims, as amended, are in accord with 35 U.S.C. §112.

OBJECTIONS

Applicants note various instances which may require typographical correction. Applicants request that prosecution on this case be maintained. With an indication of allowability, Applicants will seek to correct any uncovered errors. Applicants request an *Ex parte Quayle* action to be issued to address these matters.

Claim 63 has been amended to replace the term “vapour” with the term “vapor”.

DOUBLE PATENTING REJECTION

Claims 41-76 stand provisionally rejected under the judicially created doctrine of obviousness-type double patenting as allegedly being unpatentable over Claims 85-122 of copending Application No. 10/560,210. In view of the amendment to claim 41 made herein, Applicants request reconsideration of this rejection.

35 U.S.C. §102 REJECTIONS

Claims 41, 42, 44, 51, 54, 55, 61, 63, 69, 70, 75 and 76 stand rejected under 35 U.S.C. §102(b) as allegedly being anticipated by Morra et al. (US 5,514,424).

Morra et al. is directed to a process for reducing the friction coefficient between water and surfaces of polymeric materials. The process involves applying a thin layer of fluorinated polymer. See, Abstract. The fluorinated polymer is applied by plasma-reduced polymerization. See, e.g., col. 2, ll. 39-43. Variations of the deposited polymer may be achieved by varying the plasma parameters. See, e.g., col. 3, ll. 60-64.

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Claim 1 is directed to a plasma process which utilizes a "mask plate having an aperture that defines features of the deposited plasma polymer surface". Morra et al. does not disclose or suggest the use of a mask plate. Rather, Morra et al. relies on variation of the plasma process to obtain changes in the deposited polymer. As set forth in Applicants' specification, the mask plate is used to define features of the deposited plasma, such as the formation of dots or tracks. It is respectfully submitted that claim 41, along with dependent claims 42, 44, 51, 54-55, 61, 63, 69-70 and 75-76, are patentable over Morra et al.

Claims 41-46, 50, 53, 54, 63, 68-70, 73 and 74 were rejected under 35 U.S.C. §102(b) as allegedly being anticipated by Renner et al. (DD 94657).

Renner et al. is directed to a protective coating which is plasma deposited onto a magnetic storage medium. At p. 2, second full paragraph, Renner et al. describes the use of plasma polymerization. No use of a mask plate or other intervening article is described.

As indicated above, amended claim 41 includes recital of a mask plate. Renner et al. does not disclose or suggest the use of a mask plate. It is respectfully submitted that claim 41, along with dependent claims 42-46, 50, 53-54, 63, 68-70, 73 and 74, are patentable over Renner et al.

Claims 41-51, 54-56, 58-66, 69, 70, 75 and 76 were rejected under 35 U.S.C. §102(b) as allegedly being anticipated by Nomura (5,843,789).

Nomura et al. is directed to a process of plasma modification of lumen surface of tubing. As set forth in the Abstract of Nomura, a monomer vapor is entered into tubing which is excited to a plasma state to plasma modify the surface.

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As discussed above, claim 41 recites the use of a mask plate. Nomura et al. has no such provision. It is respectfully submitted that claim 41, along with dependent claims 42-51, 54-56, 58-66, 69-70 and 75-76, are patentable over Nomura et al.

Claims 41-46, 49-51, 53-56, 58-67, 69-72, 75 and 76 were rejected under 35 U.S.C. §102(b) as allegedly being anticipated by Hu et al. (5,463,010).

Hu et al. is directed to a hydrocyclosiloxane membrane prepared by plasma polymerization. The plasma polymerization process is described at col. 7, l. 31 – col. 9, l. 53. At col. 8, ll. 51-57, control of various plasma parameters is discussed as controlling the coating process.

As discussed above, claim 41 recites the use of a mask plate. Hu et al. does not disclose or suggest the use of a mask plate, as set forth in claim 41. It is respectfully submitted that claim 41, along with dependent claims 42-46, 49-51, 53-56, 58-67, 69-72 and 75-77, are patentable over Hu et al.

35 U.S.C. §103 REJECTIONS

Claims 65 and 75-76 stand rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Renner et al. (DD 94657).

Claims 65 and 75-76 depend from claim 41. For the reasons set forth above, it is respectfully submitted that claims 65 and 75-76, as depending from claim 41, are also patentable over Renner et al.

Claims 41-46, 48, 50, 52, 54-58, 61, 63, 69-70, 76 and 77 were rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Badyal et al. (6,358,569 B1) in view of Renner et al., and optionally further in view of Nomura. Similarly, Claims 49-51, 53, 59, 60, 62 and 64-66 stand

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rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Badyal et al. in view of Renner et al., and further in view of Nomura.

Badyal et al. is directed to a process for applying a film to a body. The process utilizes plasma polymerization. See, e.g., col. 1, ll. 28-56.

Badyal et al. does not utilize a mask plate as set forth in claim 41. Any hypothetical combination of Badyal et al., Renner et al. and Nomura does not yield the use of a mask plate. It is respectfully submitted that claim 41, along with dependent claims 42-46, 48-66, 69-70 and 75-76, are patentable over Badyal et al., Renner et al. and Nomura, each taken alone or in combination.

Claims 41-66, 68-70, 74 and 74-76 were rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Muguruma et al. (7,087,149 B1 \equiv WO 00/63685) in view of Renner et al..

Muguruma et al. is directed to a biosensor utilizing plasma polymerization. As set forth at col. 12, ll. 10-15, a mask is used in Muguruma et al.

As discussed at the second full paragraph of p. 6 of Applicants' specification, masks and stencils are known in the prior art. Muguruma et al. utilizes such a pre-fabricated mask to form a pattern. Muguruma et al., however, does not utilize a mask plate as set forth in claim 41. Renner et al. does not overcome this deficiency.

It is respectfully submitted that claim 41, along with dependent claims 42-66, 68-70, and 73-76, are patentable over Muguruma et al. and Renner et al., each taken alone or in combination.

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35 U.S.C. §112, FIRST PARAGRAPH REJECTION

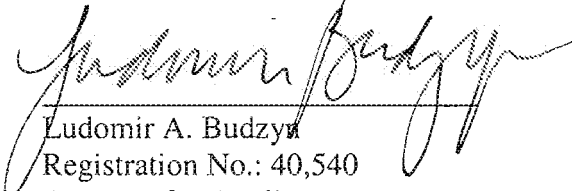
Claim 63 was rejected under 35 U.S.C. §112, first paragraph as allegedly lacking written description for the phrase "at room temperature". Support for this phrase can be found in the specification at page 12, lines 12-16 reproduced below:

A polymer may be deposited from virtually any compound (particularly organic compounds), provided it can be induced to form a plasma. Typically this means that the compound must be volatile, although this may be done by heating or by use of a carrier gas, for example monomers having a vapour pressure of at least 6.6×10^{-2} mbar at room temperature.

It is respectfully submitted that claim 63 is adequately supported by the specification.

Favorable action is earnestly solicited. If there are any questions or if additional information is required, the Examiner is respectfully requested to contact Applicants' attorney at the number listed below.

Respectfully submitted,


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